

2040

SWEDISH FOREST INDUSTRIES' ROAD TO THE FUTURE



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Together,
we are shaping
the future

Swedish forest industries' road to the future

HUMANITY FACES HUGE CHALLENGES. The world's population is growing. Earth's limited resources need to stretch further. Millions of people need to see an improvement in their living standards and be lifted out of poverty. The way we live our lives has perpetuated global warming and threatens biodiversity globally on land and in the oceans. Business as usual is not the way forward.

The forest industry wants to encourage more sustainable development. We are used to working consistently, with a long-term perspective, and thinking about future generations. We understand that tomorrow is affected by decisions made today.

The transition to a fossil-free and circular society cannot wait. The Swedish forest sector has a unique opportunity to contribute to this transition. We already do so by continually improving forest management, producing fossil-free and renewable products, and being a world leader in many areas of research. We also create jobs, generate wealth, and improve living and working conditions throughout Sweden. We also create climate benefits beyond Sweden's borders. Eighty percent of Swedish forest sector's products are sold to other countries. This means that the sector provides climate benefit to many parts of the world.

Now we want to do more. We want to accelerate a green transition that embraces sustainable development ecologically, economically, and socially. This will require fresh thinking, new investment, and new collaborations. The 220 companies that are members of the Swedish Forest Industries Federation operate different types of business. What unites us is pride in the social, climate and environmental benefits we contribute to, and the will and capacity to drive further change.

In autumn 2022, we launched a project that has come to be known as our future journey. In this brochure, we present the forest industry's road to the future with three pledges for 2040, when the next generation reaches adulthood.

By working together, the forest sector wants to increase its contribution to address the societal challenges of today and tomorrow.

Together, we are shaping the future.

26 September 2023
VIVEKA BECKEMAN,
CEO Swedish Forest Industry Federation





OUR PLEDGE FOR INCREASED CLIMATE BENEFIT

By 2040, the forest industry's climate benefit shall increase 30 per cent

At 80 metres, the award-winning Sara Cultural Center in Skellefteå is one of the world's tallest wooden buildings. The wood comes from forests in the surrounding area.



Photo: Martinsson

REDUCED EMISSIONS and increased carbon storage are two key tools to counteract global warming. Both are addressed in the Kyoto Protocol and the Paris Agreement and are the basis for EU climate laws and Sweden's domestic climate legislation.

Through forestry and with fossil-free products, we contribute to keeping emissions down and to a high level of carbon storage. To highlight this contribution, we use a model that incorporates three components:

Sequestration

Climate benefit of carbon sequestration from growing forests, forest-based products, and biogenic carbon dioxide capture.

Substitution

Climate benefit of wood-based products and energy use replacing fossil-intensive alternatives.

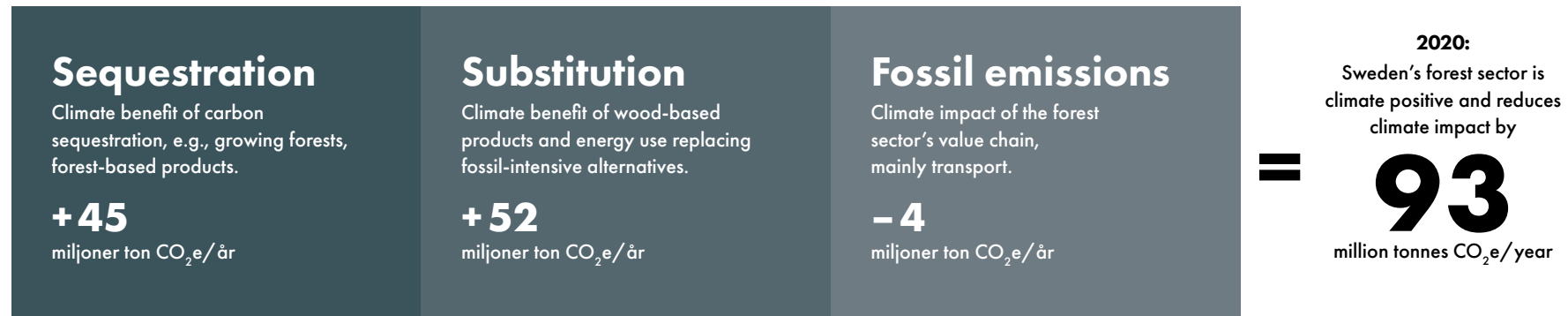
Fossil emissions

Climate impact of the forest sector's value chain, mainly transport.

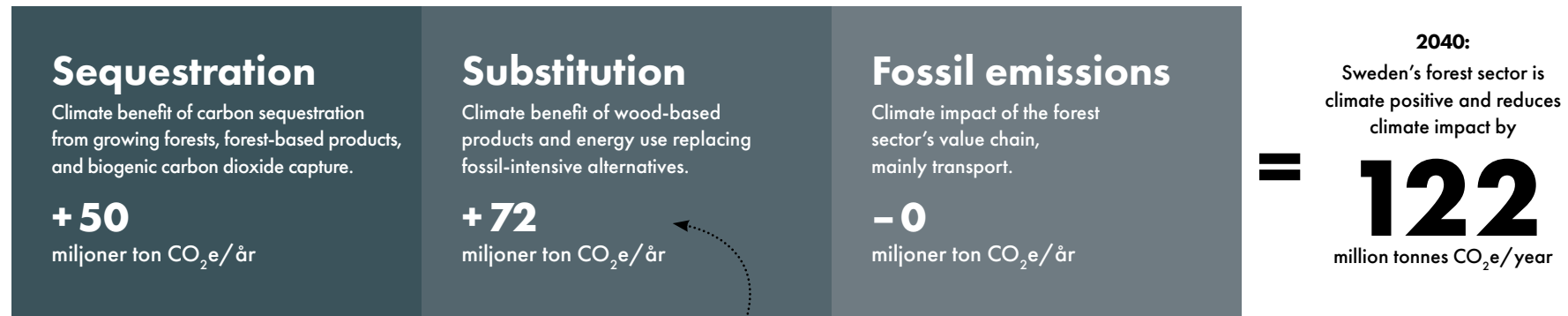
By 2040, the forest industry's climate benefit shall increase 30 per cent.

The forestry industry's annual climate benefit currently amounts to approximately 93 million tonnes of carbon dioxide equivalents (CO₂e). The sector's ambition is to increase this climate benefit by 30 per cent, to 122 million CO₂e by 2040. Much of this gain is likely to be achieved through increased substitution.

2020



2040



Much of this gain is likely to be achieved through increased substitution.

Steps along the way

Increase carbon sequestration by five million tonnes

The road towards greater carbon sequestration is through increased growth in the forest, which in turn produces more wood-based products with long lifespans. We can also achieve this through investment in biogenic carbon dioxide capture. This can in turn be used to manufacture electro-fuels and other new products.

By 2040, the forest industry will be able to contribute by sequestering five million more tonnes of carbon a year compared to 2020.

Increase substitution by 20 million tonnes

Fossil-free products from Swedish forests will increasingly replace fossil-intensive products and fuels. This is where the forest industry can increase its climate benefit the most. By developing processes and products, a greater proportion of the raw material will become sawn timber and other important products such as packaging, clothing, hygiene products, fuels and new products. We already use the entire tree, but we can increase climate benefits even further by continually improving the efficiency with which we use every part of the tree.

Increased resource efficiency also includes the use of waste. Some waste arises in the forest industry that is difficult to find uses for. From pulp and paper mills, this is mainly ash and various types of sludge. The industry must intensify its efforts to find solutions for how such waste can be converted into products. Waste from other industries, such as textiles, can become inputs in our production and thus contribute to a more resource-efficient and circular use of raw materials and other substances.

In 2040, the forest industry shall contribute to an additional 20 million tonnes in increased substitution a year compared to 2020.

Zero fossil emissions

Fossil emissions from the Swedish forest industry must be reduced from today's four million tonnes of carbon dioxide a year to zero. This will be possible when we reorganise our land-based domestic transport. You can read more about the transformation of transport on page 10.

Key conditions

For the forest industry to fulfil its pledges, we will need help along the way. Here are some key conditions. Together, we are shaping the future!

- ✓ More research and knowledge on the importance of substitution effects in climate initiatives.
- ✓ Introduce limits for products' climate impact.
- ✓ Increase research in process and product development.
- ✓ More joint investments for increased growth in the forest sector, including the development of management methods and the reduction of grazing damage from wild animals.
- ✓ Greater access to fossil-free electricity throughout Sweden. Investments in the capture and product extraction of biogenic carbon dioxide will require extremely large amounts of electricity.



Photo: Derome



OUR PLEDGE FOR A CIRCULAR SOCIETY

By 2040, all wood-based products from our industries shall be fossil-free and recyclable



Cardboard and paper packaging have high collection and recycling rate in Sweden and the EU, at around 80 – 85 per cent. For sawn wood products, recycling rates are lower.

RENEWABLE RESOURCES are needed in a circular society. Some of these resources are infinite – such as wind power and solar energy. Others are bio-based, i.e., can be grown and planted – such as trees and plants.

Renewable wood fibre can be recycled multiple times. Society needs to benefit from this as much as possible. The forest industry wants to get the most out its products by ensuring that they can be recycled several times.

We strive to refine our materials and products so that they are easy to recycle multiple times.

For certain materials, wooden building materials in particular, we also want to contribute to increased reuse.

In order to achieve a completely renewable value chain, we must also phase out the use of fossil fuels in our domestic transport.

Steps along the way

Fully fossil-free products

Raw materials and large parts of the forest industry's production of its products are fossil-free. We are now focusing on what remains. Some products contain fossil materials. These will be replaced with bio-based materials. By 2035, we will have completely fossil-free products.

Fully fossil-free transport

As Sweden's largest transport buyer, the forest sector wants to be an active and important player in driving progress towards a transition to fossil-free transport in Sweden by 2040. This can be achieved with the help of renewable fuels, electric vehicles and greater use of rail in combination with improved efficiency.

Fully reusable wood products

When a building is demolished or rebuilt, wood-based building materials can be reused to a much greater extent than is currently the case. A large number of construction industry actors need to co-operate on this. From our side, we can, for example, contribute with building materials that are easy to reuse for a longer lifespan. This could involve modular systems that are easy to dismantle and reuse in new buildings, or increased traceability so that information about individual building components is readily available. By 2030, our wood products must be fully reusable.

Fully recyclable products

Cardboard and paper packaging have high collection and recycling rates in Sweden and across the EU, at between 80 and 85 per cent. Recycling rates are lower for sawn wood products. To encourage

people to recycle more, the forest industry must ensure that the materials and products we manufacture, including planks and boards, are easier to recycle. They must be fully recyclable by 2030.

Key conditions

To fulfil our pledges, we will need help along the way. Here are several such measures that need to be put in place. Together, we are shaping the future!

- ✓ The perception of waste needs to be changed as well as associated legislation. What we currently refer to as waste is an important resource in the circular society.
- ✓ Increased research in process and product development.
- ✓ Optimised transport and goods flows throughout the entire value chain.
- ✓ Development of more fossil-free chemicals and inputs.
- ✓ Amended and improve regulations and standards so that they facilitate recycling.
- ✓ Support for the transition to renewable, fossil-free and circular products.
- ✓ Increased maintenance of infrastructure, mainly road and rail.
- ✓ Increased availability of biofuels at competitive prices, a fossil-free electricity system with a high degree of capacity in the grid and the continued development of electric vehicles with a focus on heavy trucks and machinery.
- ✓ Cross-sector collaborations that enable the reuse of building materials.
- ✓ Establish faster and more predictable permit processes.



Photo: Johner



OUR PLEDGE FOR BIODIVERSITY

By 2040, Sweden shall have flourishing forests rich in biodiversity

The Swedish forest industry works actively through research and collaborations to protect and improve biodiversity.



BIODIVERSITY IS NECESSARY to have vigorous and prosperous forests that have greater resilience to climate change and more extreme weather conditions. We believe that the forest should be used in such ways that increase growth and biodiversity.

Swedish forestry has developed over time, in part due to research into farming methods. Today's clearings are smaller, there are more deciduous trees, and the amount of dead wood is increasing. Sweden's forest owners conduct socially, economically and environmentally sustainable forestry management based on the principle that

production goals and environmental goals are equally important.

Although conditions for biodiversity are improving, there are species that struggle to remain and spread in managed forests. The Swedish forest sector works actively through research and collaborations with various actors, in its own forests and by providing advice to private forest owners, to protect and improve biodiversity. Special consideration needs to be taken with various management measures in managed forests, and we must continue to develop these efforts.

Steps along the way

More varied forestry

The natural values of the forest landscape increase when it is managed with consideration for the environment. Nature conservation-adapted tract harvesting, and other management models must continue to be developed.

We will expand awareness and improve innovative measures that support biodiversity and strive for more diverse forests, by, for example, favouring the mixing of hardwoods in coniferous forests.

We will also set aside larger adjoining forest areas to enable practical trials with alternative forest management methods.

Climate adaptation is an integral and important part of all our efforts.

Increased conservation management

Sweden's forest owners voluntarily set aside the same amount of forest that is under state protection for nature conservation. These voluntary measures are necessary to ensure the conservation of endangered species. Many conservation forests require active management to preserve and enhance their natural values.

Through joint efforts with authorities, landowners and non-profit actors, we work to ensure the survival of endangered species in protected and managed areas.

New measurement methods for increased knowledge

For almost 30 years, Swedish foresters have strived to achieve production and environmental goals in equal measure. Many of the structures and habitats that are important for biodiversity have

increased, but more knowledge is still needed about how species respond to forestry's nature conservation and management efforts.

Our goal is to develop measurement methods that show how biodiversity in cultivated forests in general – and threatened species in particular – improves with nature conservation and management efforts.

As a preliminary goal, we are striving for measurable improvement in the state of biodiversity in cultivated forests by 2030.

More research

How do different types of forestry and different forms of nature conservation efforts affect the survival of species? And how do different interventions affect conditions for species to spread and re-establish themselves in areas that have been harvested?

These are examples of the important questions to which we currently lack answers. More knowledge is needed about how different forms of forestry affect biodiversity.

We also need research how we can sustainably increase growth in our forests, especially when using alternative management methods, and how we create viable forests in a changing climate.

We will therefore take active steps to establish programmes to develop new knowledge and skills in these areas.



Photo: SCA

Examples of how we can improve biodiversity:

- ✓ By cutting off spruce in hardwood dominated biotopes, we favour species such as the white-backed woodpecker.
- ✓ By thinning in nutrient-rich biotopes that would otherwise be too dark, we favour the ground flora of orchids.
- ✓ By leave and create dead wood where it does the greatest possible good, we favour, for example, insects, mosses, lichens and mushrooms.

This is how we follow up on our biodiversity pledges:

In addition to its own follow-ups, the industry collaborates and monitors biodiversity through the Swedish Forest Agency's "Green Steps" programme.*

- ✓ The amount of dead wood of different tree species and sizes must increase in all areas of Sweden. The total amount of dead wood created annually must increase 25 per cent by 2028.
- ✓ The area of older deciduous forest and the area of younger deciduous forest must increase by five percent each by 2028.
- ✓ The area of old forest must increase by 10 per cent by 2028.
- ✓ Alternative methods of use will continue to be developed.

Evaluation of how we perform on our pledges is made easier through co-operation with the Swedish Forest Agency and using their existing process.

** The Swedish Forest Agency's Green Steps objectives were drawn up in 2023 and apply to a number of different areas. Some steps have a clear link to environmental issues during felling and other forestry activities, while others relate to overall aspects such as variations in forest and wildlife management.*

Key conditions

For the forest industry to fulfil its pledges, we will need help along the way. Here are several such measures that will be necessary. Together, we are shaping the future!

- ✓ Invest in research into which measures benefit biodiversity most effectively and the effects of climate change on forests and biodiversity.
- ✓ More research into how growth in forests can be increased sustainably – especially for alternative forms of management.
- ✓ Ensure that new insights from forestry research reach those who own and use forests, so that knowledge can be quickly put into practice.
- ✓ Develop and use reliable and credible measures methods to ensure that nature conservation efforts do genuine good.
- ✓ Facilitate continued and developed collaboration with other stakeholders.
- ✓ Increase understanding that trees grow slowly. It takes time to create real change in forests.

Together, we are shaping the future.

Read more about our pledges here:

